CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 79-129

NPDES PERMIT NO. CA0037681

WASTE DISCHARGE REQUIREMENTS FOR:

CITY AND COUNTY OF SAN FRANCISCO
RICHMOND-SUNSET PLANT

The California Regional Water Quality Control Board, San Francisco Bay Region, finds that:

1. City and County of San Francisco, hereinafter called the discharger, submitted a report of waste discharge (NPDES Standard Form A), dated September 27, 1979.

2. The discharger presently discharges an annual average of 22.0 million gallons per day (mgd) of domestic wastewater containing pollutants into the Pacific Ocean, a water of the United States, from Mile Rock Tunnel located at the base of a cliff in Lincoln Park in line with a prolongation of Forty-Eighth Avenue. The design flow for the plant is 24 mgd.

3. The discharge from the Mile Rock Tunnel consists of effluent from the primary treatment plant during dry weather and of mixed effluent, raw sewage and storm water during wet weather. This permit will apply only to the discharge during dry weather.

4. The State Water Resources Control Board, in January 1978, adopted the revised "Water Quality Control Plan for the Ocean Waters of California" which contains water quality objectives for the Pacific Ocean.

5. The beneficial uses of the Pacific Ocean are:

   a. Recreation
   b. Preservation and enhancement of fish, wildlife and other marine resources or preserves
   c. Industrial water supply
   d. Esthetic enjoyment
   e. Navigation

6. The Board adopted Order No. 74-164 on December 6, 1974, issuing an NPDES permit to the discharger. This was amended by Order Nos. 77-62 and 77-101 in June 1977 and July 1977, respectively.

7. The discharger has requested a waiver from secondary treatment requirements for deep water discharge into marine waters. This request is being reviewed by the Environmental Protection Agency (EPA). If such waiver is granted by EPA, the Board will make appropriate modifications of this Order.

8. The issuance of waste discharge requirements for this discharge from an existing publicly owned sewage treatment facility, involving no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15101, Chapter 3, Title 14, California Administrative Code. As an NPDES permit, the Board is not required to comply with the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the Water Code.

9. Effluent limitations and toxic and pretreatment effluent standards established pursuant to Sections 208b, 301, 302, 303d, 304, and 307 of the Federal Water Pollution Control Act are applicable to the discharge.

10. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

11. The Board in a public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, the City and County of San Francisco in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act, and regulations and guidelines adopted thereunder shall comply with the following:

A. Effluent Limitations - Dry Weather

1. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

Constituent	Units	30-Day Average	7-Day Average	Maximum Daily	Instantaneous Maximum
a. BOD	mg/l	30	45	60	-
	lbs/day	9,550	14,230	19,100	-
	kg/day	4,330	6,470	8,660	-
b. Grease & Oil	mg/l	10	-	20	75
	lbs/day	3,190	-	6,380	23,720
	kg/day	1,450	-	2,900	10,780
c. Suspended Solids	mg/l	30	45	60	
	lbs/day	9,550	14,230	19,100	
	kg/day	4,330	6,470	8,660	
d. Settleable Solids	ml/l/hr	0.1	-	-	0.2
e. Turbidity	JTU	75	100	-	225
f. Toxicity Concentration	tu	1.5	2.0	-	2.5
g. Chlorine Residual	mg/l	-	-	-	0.0

2. Prior to achievement of secondary treatment as required by the Federal Water Pollution Control Act, the following interim effluent limitations shall apply:

   a. Any 24-hour composite sample made up of portions collected in proportion to rate of flow at time of collection:

      Settleable Matter 0.5 ml/l/hr, maximum

   b. Any grab sample:

      Settleable Matter 1.0 ml/l/hr, maximum

3. The arithmetic mean of the biochemical oxygen demand (5-day, 20°C) and suspended solids values, by weight, for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).

4. The discharge shall not have a pH of less than 6.0 nor greater than 9.0.

5. The discharge shall not have a median total coliform concentration for five samples in excess of 240 MPN/100 ml.

6. Representative samples of the effluent shall not exceed the following limits:[2/]

Constituent	Unit of Measure	6-Month Median	Daily Maximum	Instantaneous Maximum
Arsenic	mg/l	.01	.05	.10
Cadmium	mg/l	.02	.10	.20
Total Chromium	mg/l	.01	.025	.10
Copper	mg/l	.20	.40	.50
Lead	mg/l	.10	.40	.50
Mercury	mg/l	.001	.005	.01
Nickel	mg/l	.10	.50	.80
Silver	mg/l	.02	.04	.05
Zinc	mg/l	.30	.80	1.0
Cyanide	mg/l	.10	.40	1.0
Phenolic Compounds	mg/l	.50	2.0	5.0
Ammonia (expressed as nitrogen)	mg/l	40	160	400
Total Identifiable Chlorinated Hydrocarbons including PCB's[1/]	mg/l	.002	.004	.006
Radioactivity	Not to exceed limits specified in Section 30269 of the California Administrative Code			

[1/] Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, Chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls (PCB's), and other identifiable chlorinated hydrocarbons.

[2/] These limits are intended to be achieved through secondary treatment source control and application of pretreatment standards. If upon completion of secondary treatment facilities the discharger is unable to comply with these limitations and can show good cause for such failure, the Board will consider modification of these limits.

B. Receiving Water Limitations - Dry Weather

1. Floating particulates and grease and oil shall not be visible.

2. The discharge of waste shall not cause esthetically undesirable discoloration of the ocean surface.

3. The transmittance of natural light shall not be significantly[1/] reduced at any point outside the initial dilution zone.[1/]

4. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.[1/]

5. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, the following bacteriological requirements shall be maintained throughout the water column:

   (a) Samples of water from each sampling station shall have a concentration of coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).

   (b) The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any 30-day exceed 400 per 100 ml.

6. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.

7. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

8. The dissolved sulfide concentration of waters in and near sediments shall not be significantly[1/] increased above that present under natural conditions.

9. The concentration of organic materials in marine sediments shall not be increased above that which would degrade[1/] marine life.

10. Nutrient materials shall not cause objectionable aquatic growths or degrade[1/] indigenous biota.

[1/] As defined in the "Water Quality Control Plan for Ocean Waters of California" dated January 1978.

11. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.[1/]

12. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.

13. The discharge shall not cause toxic or other deleterious substances to be present in waters of the State in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

14. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

15. Prior to achievement of secondary treatment as required by the Federal Water Pollution Control Act the following interim receiving limitations shall apply:

    a. The discharge of effluent shall not cause any of the following conditions at any time:

        1) Dissolved sulfide concentrations greater than 0.1 mg/l within one foot below the surface of the Pacific Ocean at any place;

        2) At any place more than 100 feet from the Mile Rock Outfall

Dissolved Oxygen	5.0 mg/l minimum
pH	6.5 minimum to 8.5 maximum

        3) No sewage discharged from the Mile Rock outfall shall cause the receiving waters at the beaches within 1500 feet of that outfall to exceed those standards prescribed in Sections 7957 and 7958 of Title 17, California Administrative Code at any time that the public is not effectively excluded from these beaches.

C. Discharge Prohibitions

1. Discharge within 1,000 feet offshore from the extreme low waterline and where the waste will not receive a minimum dilution ratio of 100:1 as it reaches the surface is prohibited.

[1/] As defined in the "Water Quality Control Plan for Ocean Waters of California" dated January 1978.

2. There shall be no bypass or overflow of untreated wastewater to waters of the State during dry weather either at the treatment plant or from the collection system.

3. The average dry weather flow shall not exceed 24 mgd. Average shall be determined over three consecutive months each year.

4. The discharge of municipal and industrial waste sludge directly to the ocean, or into a waste stream that discharges to the ocean, shall be prohibited. The discharge of sludge digester supernatant directly to the ocean, or into a waste stream that discharges to the ocean without further treatment shall be prohibited.

D. Provisions

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.

2. The discharger shall comply with the following time schedules to assure compliance with specifications of this order:

Task	Completion Date
a. Full Compliance	July 1, 1977

3. The discharger shall review and update annually its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

4. This Order does not revoke Order No. 74-164 (as amended). Order No. 74-164 (as amended) shall remain in full force and effect until Order No. 76-5 is rescinded.

5. The discharger shall comply with the Self-Monitoring Program as ordered by the Executive Officer.

6. The discharger shall comply with all items of the "Standard Provisions, Reporting Requirements and Definitions" dated April 1977, except A.12 and B.3.

7. This permit shall be modified, or alternatively revoked and reissued as soon as practicable to incorporate an approved publicly owned treatment work (POTW) pretreatment program or a compliance schedule for the development of a POTW pretreatment program as required under Section 402(b)(8) of the Clean Water Act and implementating regulations or by the requirements of the approved state pretreatment program as appropriate.

8. This Order expires on August 1, 1984, and the discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

9. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective ten (10) days after date of its adoption provided the Regional Administrator, Environmental Protection Agency has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on October 16, 1979.

FRED H. DIERKER
Executive Officer